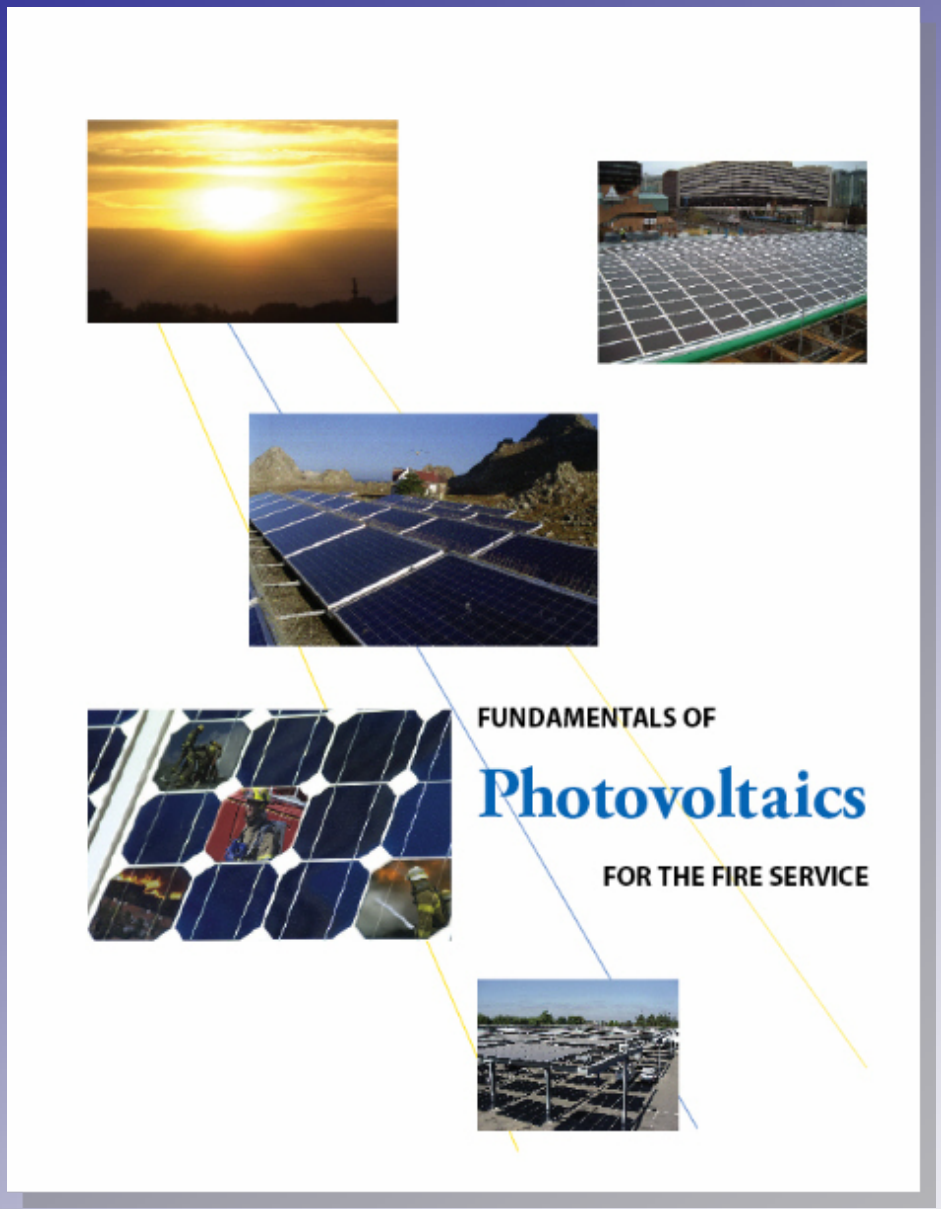

Program Funded By:

Sacramento Municipal

Utility District

&

California Solar Energy

Industries Association

Instructional Design By:

Rodney Slaughter

INTRODUCTION

Technical Review

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Les Nelson CAL SEIA	Sue Kateley California Energy Commission
Lee Parker, Captain Modesto Fire Department	Scott Corrin, Fire Marshal U.C. Riverside Fire Department
Bob Gill, Chief Central Calaveras County Fire & Rescue	Russ Tingley, Fire Chief Hermosa Beach Fire Department
Howard Cooke, Fire Inspector Sacramento Fire Department	Dirk Drossel, Fire Inspector Burbank Fire Department

INTRODUCTION

Program Goal:

To provide fire service personnel with an awareness of photovoltaic systems, so that you can make informed decisions and operate safely during an emergency.

INTRODUCTION

Course Materials on Compact Disk:

- Student Manual
- Student Handout
- Instructor Guide
- Powerpoint Presentation

INTRODUCTION

Student Introductions

- Name
- Rank/Position
- Department or Agency
- What do you know about solar energy?
- What do you hope to learn?

AGENDA

- INTRODUCTION
- CELLS AND COMPONENTS
- PV PERFORMANCE
- PV APPLICATIONS
- CODES AND STANDARDS
- EMERGENCY RESPONSE

What are the chances of responding to an emergency where a photovoltaic system has been installed?

INTRODUCTION

2005 Worldwide PV Production
1,565 megawatts

2005 Worldwide PV Production:
Germany at 53% or 837 MW
Japan at 14% or 292 MW
U.S.A. at 3% or 104 MW

By 2010, 2.5 gigawatts of PV production is projected worldwide

INTRODUCTION

California is the National leader

17,300 grid-connected systems

California's Goal:

One million solar roofs by 2017

Generating 3,000 MW of electricity

Double the worldwide PV output in 2005

INTRODUCTION

Livermore, California – Multi-family housing development outfitted with PV electric systems- the wave of the future!

Are photovoltaic systems safe to operate around?

INTRODUCTION

Yes! Under normal operating conditions

The PV industry has a good safety record

But, no technology is risk free!

Only one recorded PV electrical injury to a fire fighter was reported worldwide

INTRODUCTION

Emergency Conditions
Know the Potential Hazards:

- Electric Shock
- Inhalation Exposure
- Falls from Roofs
- Roof Collapse

INTRODUCTION

With a concentration of PV in San Diego, there were no reported injuries during the 2003 wild fires

SUMMARY

The fire service has been known to be resistant to technological changes in our society.

Alternative energy production is the next big technological change that the fire service will have to come to terms with.

SMUD and CAL SEIA have seen the need to inform emergency responders of how to work around photovoltaic technology safely.